3M

MP8630 Multimedia Projector

Operator's Guide

MP8630 Projecteur multimédia Guide de l'opérateur

MP8630 Multimedia-Projektor Benutzerhandbuch

Proyector de Multimedia MP8630 Manual del Usuario

MP8630 Proiettore Multimediale Manuale dell'operatore

MP8630 Bruksanvisning för multimediaprojektor

MP8630 Multimedia Projector Gebruiksaanwijzing

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THANK YOU FOR CHOOSING 3M

Thank you for choosing 3M Multimedia Projector equipment. This product has been produced in accordance with 3M's highest quality and safety standards to ensure smooth and trouble free use in the years to come.

For optimum performance, please follow the operating instructions carefully. We hope you will enjoy using this high performance product in your meetings, presentations and training sessions.

LIMITED WARRANTY

3M warrants this product against any defects in material and workmanship, under normal usage and storage, for a period of one year from date of purchase. Proof of purchase date will be required with any warranty claim. In the event this product is found to be defective within the warranty period, 3M's only obligation and your exclusive remedy shall be replacement of any defective parts (labor included).

To obtain warranty service, immediately notify the dealer from which you purchased the product of any defects. The dealer has the option of repairing the product or returning it to 3M for repair or replacement. In the USA call 1-800-328-1371 for warranty or repair service.

LIMITATION OF LIABILITY

THE FOREGOING WARRANTY IS MADE IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, AND 3M SPECIFICALLY DISCLAIMS ANY IMPLIED WARRANTY OF MERCHANTIBILITY AND FITNESS. 3M SHALL NOT BE LIABLE FOR ANY DAMAGES, DIRECT, CONSEQUENTIAL, OR INCIDENTAL, ARISING OUT OF THE USE OR INABILITY TO USE THIS PRODUCT.

Important: The above warranty shall be void if the customer fails to operate product in accordance with 3M's written instructions. This warranty gives you specific legal rights and you may have other rights which vary from state to state.

FCC STATEMENT - CLASS A: This equipment generates, uses and can radiate radio frequency energy, and if not installed and used in accordance with the instruction manual may cause interference to radio communications. It has been tested and found to comply with the limits for a Class "A" computing device pursuant to Subpart B of Part 15 of the FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference in which case the user at his/her own expense will be required to take whatever measures may be required to correct the interference.

EEC STATEMENT: This machine was tested against the 89/336/EEC (European Economic Community) for EMC (Electro Magnetic Compatibility) and fulfills these requirements.

Video signal cables: Double shielded coaxial cables (FCC shield cable) must be used and the outer shield must be connected to the ground. If normal coaxial cables are used, the cable must be enclosed in metal pipes or in a similar way to reduce the interference noise radiation.

Video inputs: The input signal amplitude must not exceed the specified level.

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IMPORTANT SAFEGUARDS

1. Read and understand all instructions before using.

    Pay particular attention to areas where this ⚠ symbol is shown.

    ⚠ **WARNING** - Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

    ⚠ **Caution** - Indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury. It may also be used to alert against unsafe practices.

2. Close supervision is necessary when any appliance is used by or near children. Do not leave appliance unattended while in use.

3. Never look directly into the projector lens when the lamp is on. The metal halide lamp produces a strong light which could damage your eyesight.

⚠4. Care must be taken as burns can occur from touching hot parts.

5. Do not operate appliance with a damaged cord or if the appliance has been dropped or damaged – until it has been examined by a qualified service technician.

⚠6. Position the cord so that it will not be tripped over, pulled, or contact hot surfaces.

7. If any extension cord is necessary, a cord with a current rating at least equal to that of the appliance should be used. Cords rated for less amperage than the appliance may overheat.

8. Always unplug appliance from electrical outlet before cleaning and servicing and when not in use. Grasp plug and pull to disconnect.

9. To reduce the risk of electric shock, do not immerse this appliance in water or other liquids.

10. To reduce the risk of electric shock, do not disassemble this appliance, but take it to a qualified technician when service or repair work is required. Incorrect assembly can cause electric shock when the appliance is subsequently used.

11. Connect this appliance to a grounded outlet.

⚠12. This unit is equipped with optical lenses and should not be exposed to direct sunlight.

13. Keep ventilation opening free of any obstructions.

14. Always open the lens shutter when the projection lamp is on.

SAVE THESE INSTRUCTIONS

The information contained in this manual will help you operate and maintain your 3M MP8630 Multimedia Projector.

Section 1: Unpack

1.1 Contents of Shipping Box

The 3M™ MP8630 Multimedia Projector is shipped with the necessary cables required for standard VCR, PC, MAC™ II or laptop computer connections. Carefully unpack and verify that you have all of the items shown below in Figure 1.1.

MP8630 Multimedia Projector

Remote Control Transmitter
(batteries included)

Power Cord
110V – US
220V – UK, Europe

3-Conductor
Video/Audio Cable

VGA Cable
(15-15 pin M/M)

Adapter
with dip switch

Video Cable
(S-Video mini DIN4-pin)
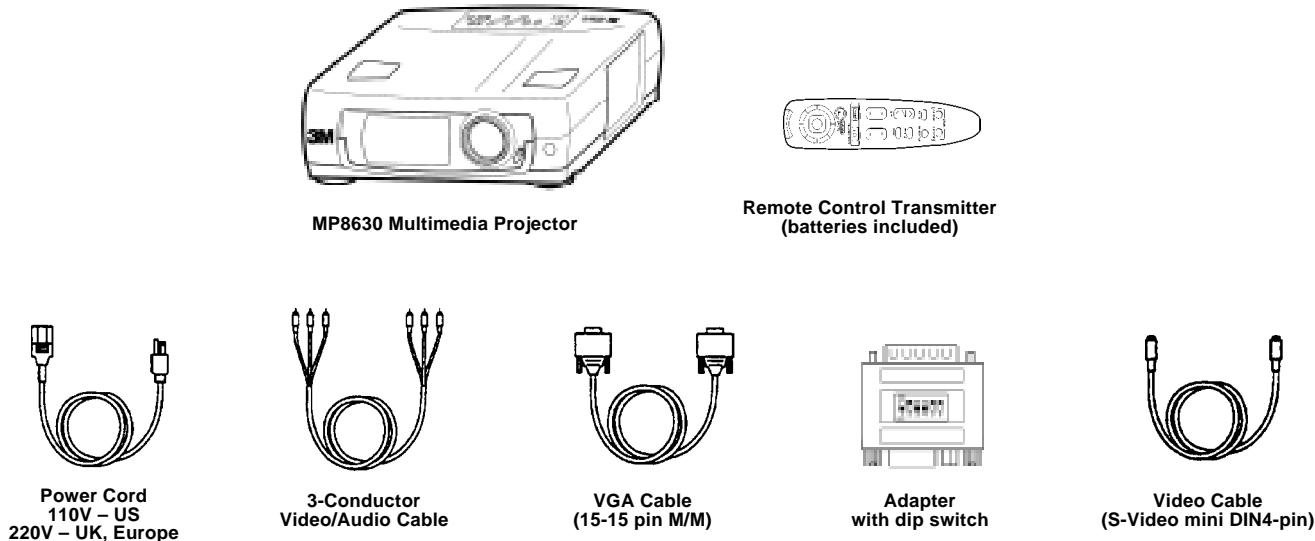
Figure 1.1 Inventory of Shipping Box

The shipping carton contains the items illustrated in Figure 1.1.   In addition, the following items are also included, but not shown here. If any of these items are missing, please contact your place of purchase.

- PS/2 mouse cable .... (1)
- ADB mouse cable .... (1)
- Serial mouse cable .... (1)
- Stereo mini-jack .... (1)

1.2 Optional Accessories

- RS232 control cable .... (1)

1.3 Keep Your Packaging Materials

Important: *Save the shipping box and packing materials in the event the MP8630 should require shipping to a 3M Service Center for repair.*

1.4 What Next?

After you have unpacked the MP8630 system and identified all the parts, you are ready to set up the projector.

2.1   Machine Characteristics

The MP8630 Multimedia Projector integrates metal halide lamp and polysilicon LCD display technology into a single unit. It accepts input from two different computer sources and two video/audio sources and projects a bright, super crisp image. Switching your presentation from a computer to a video image, and then back to a computer simply requires the push of a button on the remote control keypad or control panel keypad.

The MP8630 Multimedia Projector offers the following features:

- 500 lumens (A highly efficient optical system with a metal halide lamp ensures high brightness)
- SVGA resolution (3 separate 800 x 600 LCD panels are used for the R, G and B signals)
- XGA compression
- Compact size, light weight for portability
- RGB (computer video) output terminal
- Serial, PS/2 and Apple© Desktop Bus (ADB) mouse emulation
- Power zoom and power focus functions
- Easy to set up and use
- Ability to display 16.7 million colors
- Two computer input connections
- Two video input connections (composite and S-video compatible)
- Full function remote control
- Two built-in stereo speakers (2 watt)
- Horizontal and vertical image inverting function
- Horizontal and vertical image position control
- Fixed keystone correction
- On screen menu with seven languages
- Universal power supply
- IR sensor in front and rear for maximum remote control range
- RS232 control capability
- Optional ceiling mount kit

2.2 Main Unit Identification

LAMP indicator

ON indicator

Speakers

Remote control sensor

Handle

3M MP8640

3M

Cooling fan (exhaust)

Lens

Lens shutter

Remote control sensor

Cooling fan (inside)

STANDBY / ON button
Power ON/OFF button. OFF sets the unit in standby mode.

TEMP Indicator

MUTE button.

ZOOM button
Adjusts picture size.

FOCUS button
Adjusts focus.

MENU button

RESET button
Resets unit to factory settings.

INPUT button
To select the input source.
Each time this button is pressed, the input source is changed in sequence as shown below.
RGB1 → RGB2 → VIDEO1 → VIDEO2

VIDEO input terminal
S-VIDEO input terminal
VIDEO input terminal
AUDIO L/R input terminal

S-VIDEO VIDEO L AUDIO R

RGB IN

AUDIO IN

AUDIO OUT

AC SW

RGB OUT

CONTROL

AC IN

RGB input terminal
RGB input terminal
AUDIO input terminal
    Stereo mini jack

RGB output terminal
RGB output terminal
AUDIO output terminal
    (RGB/VIDEO)
    Stereo mini jack

MAIN POWER switch
Main power ON/OFF switch.
○: OFF
│ : ON

AC IN socket
Connect the provided power cord.

CONTROL terminal
D-sub 15pin terminal

2.3   System Set Up - connecting various equipment

AC In Socket

VCR with S-VHS out

Laptop Computer

Desktop Computer

VCR or Laser Disc
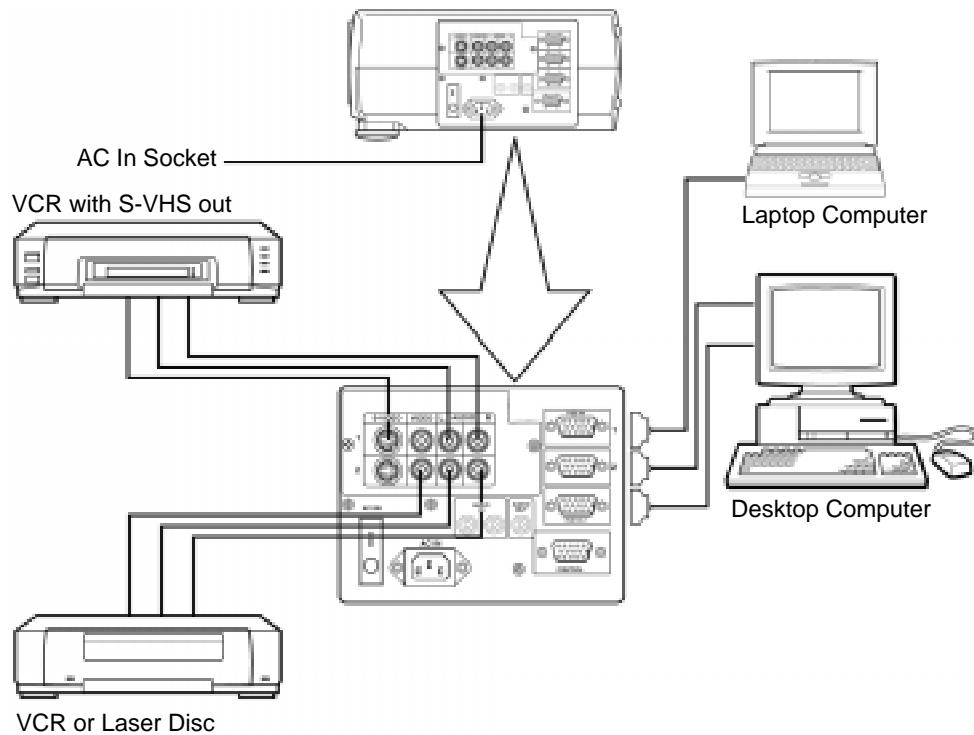
⚠ *Caution:*   *Turn power off to all devices before making connections. Never plug anything into the projector or computer while the units are in operation.*

The MP8630 must be powered down when making connections. The mouse emulation may not work if the unit is not powered down after the mouse cable connections are made.

2.3.1   **Apple™ Desktop Mouse** - The ADB operating system should recognize the MP8630 as a mouse without any drivers being loaded.

Virtual Mouse for PCs - Setting up for most personal computers (IBM™ compatible). When setting up the virtual mouse function on the projector, the following must be done, if the operating system fails to recognize the projector as a mouse:

• Change mouse driver information to "Serial Mouse" or "PS/2 Mouse."

Windows™ 95 - Click "Start"; select "Settings"; select "Control Panel". Click on "Mouse"; select the "General" tab; (see what driver is currently loaded and make note of it); select "Change"; select "Show all compatible devices"; (make note of the current Manufacturer and Model); select "Standard Mouse Type" for Manufacturer; then select "Standard Serial Mouse" or "Microsoft™ PS/2 Port Mouse."   Click OK to change and apply the new driver. Restart Windows when prompted.

Windows™ 3.1 - From "Program Manager" click "Main"; then click "Windows Setup", (make note of what the current mouse driver is); Click "Options"; then "Change Systems Settings". Choose "Mouse". It should be listed as "Microsoft or IBM PS/2".

Note: *Always remember, once all PC settings have been made, turn the projector on FIRST, then turn on and boot the PC/laptop.*

For some laptop computers you may need to disable the internal pointing device (IPD). This is done through the BIOS level set up of the particular machine, or it could be listed in a "Utilities" program group, i.e., "Toshiba Utilities™," or "Thinkpad Utilities™."

2.4   Remote Control Transmitter Identification

STANDBY / ON button
Power ON/OFF button.
OFF sets the unit in standby mode.

ZOOM button
Adjusts picture size.

TIMER ON / OFF button
Displays or removes TIMER.
When the blank screen is displayed,
TIMER can not be displayed.

BLANK ON / OFF button
Blanks the screen. Pull down or left on
stick switch to reveal screen.

POSITION button
Hold this button and move stick switch
to adjust vertical and horizontal image
position.

INPUT SELECT buttons
Selects the input source.

STICK SWITCH
If Menu is on screen, stick switch
controls movement within menu.
If Menu is not displayed, stick switch
is used for mouse emulation, i.e. left
mouse button and cursor movement.

RESET / RIGHT button
If Menu is on screen, button resets
menu to factory default settings.
If Menu is not displayed, button is used
for mouse emulation, i.e. right mouse
button.

MENU ON / OFF button
Displays or removes the on-screen
menus.

FOCUS button
Adjusts focus.

VOLUME button
Adjusts volume.

MUTE button
Disables sound.

**How to insert batteries:**   Insert the provided batteries (AA or R6P) into the remote control transmitter.

1. Remove the battery compartment cover.

Slide the battery compartment cover in the direction of the arrow while pressing slightly down on it.
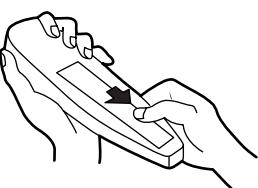
2. Insert the batteries as illustrated inside the battery compartment.

3. Replace the cover.
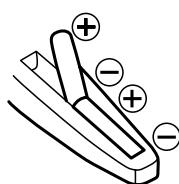

3.1 Installation

Example of the Multimedia projector and screen installation. Determine picture size and projection distance as illustrated below.
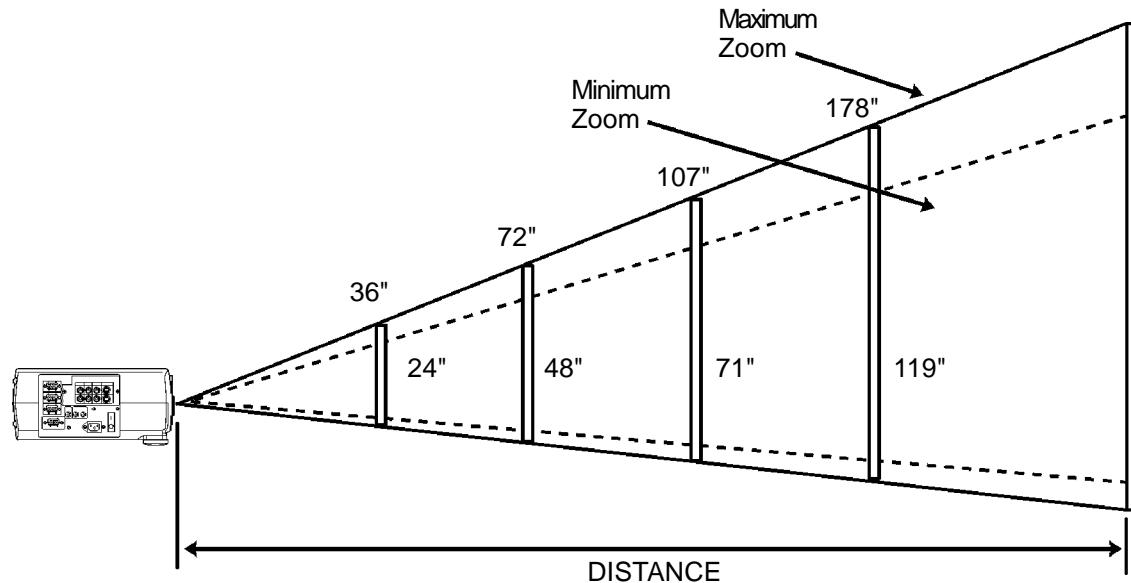
Distance To Screen	Minimum Image			Maximum Image		
	Diagonal	**Width**	**Height**	**Diagonal**	**Width**	**Height**
227 cm (7.4 ft)	102 cm (40 in.)	81 cm (32 in.)	61 cm (24 in.)	153 cm (60 in.)	122 cm (48 in.)	92 cm (36 in.)
341 cm (11.2 ft)	152 cm (60 in.)	121 cm (48 in.)	91 cm (36 in.)	228 cm (90 in.)	183 cm (72 in.)	137 cm (54 in.)
455 cm (15 ft)	202 cm (80 in.)	162 cm (64 in.)	121 cm (48 in.)	304 cm (120 in.)	243 cm (96 in.)	182 cm (72 in.)
569 cm (18.7 ft)	252 cm (99 in.)	202 cm (79 in.)	151 cm (60 in.)	379 cm (149 in.)	303 cm (119 in.)	227 cm (90 in.)
682 cm (22.4 ft)	302 cm (119 in.)	241 cm (95 in.)	181 cm (71 in.)	454 cm (179 in.)	363 cm (143 in.)	272 cm (107 in.)
853 cm (28.0 ft)	377 cm (148 in.)	302 cm (119 in.)	226 cm (89 in.)	556 cm (223 in.)	453 cm (178 in.)	340 cm (134 in.)
1137 cm (37.3 ft)	502 cm (198 in.)	402 cm (158 in.)	301 cm (119 in.)	755 cm (297 in.)	604 cm (238 in.)	453 cm (178 in.)

Note: These sizes are ±1 inch. This is due to variations in the manufacture of the lens. If you are close to one of the endpoints you should verify with your unit that the image is the proper size at the proper distance.

3.2 Using the Projector
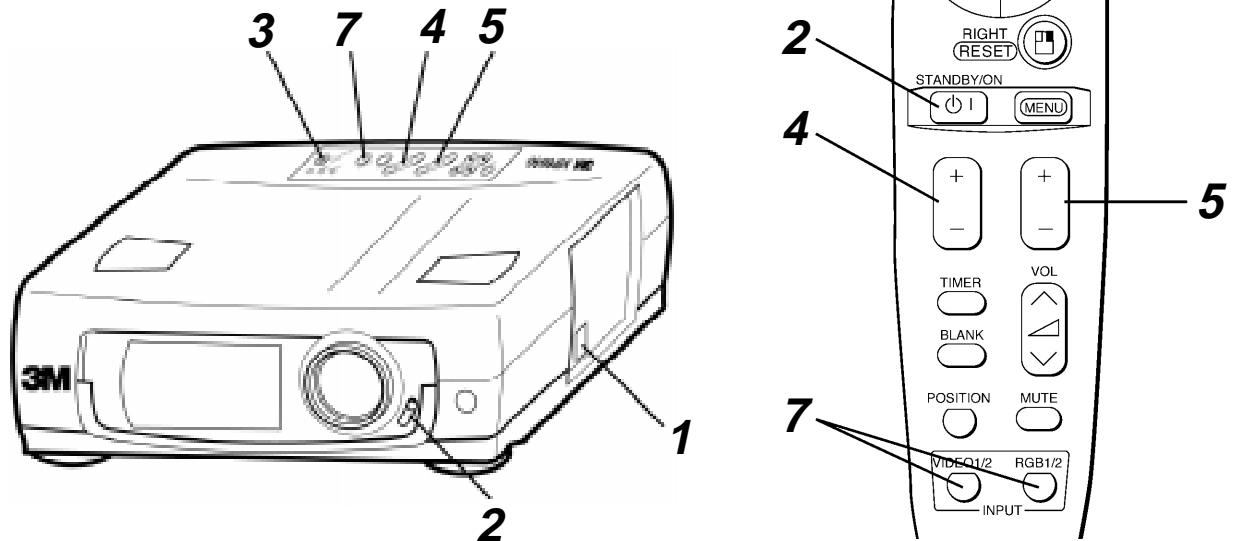
Note: Make all cable connections and line hookups FIRST.

1 Turn the MAIN POWER switch of the projector on.
• The ON indicator will light up orange.
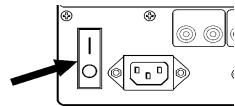
2 Open the lens shutter.
• Push down lens shutter switch to open.

3 Press the STANDBY/ON button.
• The ON indicator blinks (green) and then lights (green).
• The ON indicator will blink green during warm-up and lamp ignition.
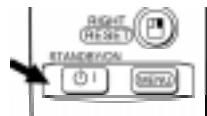
4 Adjust the screen size using the ZOOM button.

5 Adjust the focus using the FOCUS button.
(1) Press the FOCUS button. The on-screen display shown on the right appears.
(2) Adjust the focus so that the picture is sharp using the FOCUS button.

6 Turn on all connected equipment.
The method of connecting various equipment, see section 2.3.

+++FOCUS+++

7 Press the INPUT button on the projector or the INPUT SELECT (VIDEO or RGB) button on the remote to select the source of the signal to be projected on the screen.
• The selected signal input is displayed at the bottom right of the screen. The display will show the **last selected input source** before power was turned off.

RGB 1

Example on-screen display

3.3 Turn Off the Power
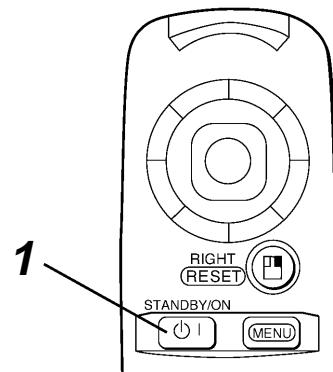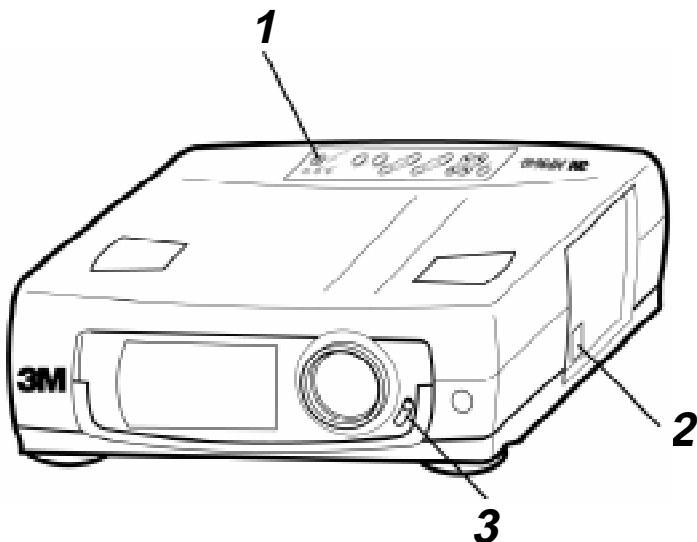
1 Hold the STANDBY/ON button for 3-5 seconds.

- The ON indicator blinks orange and the lamp turns off.
  After approximately 1 minute, the fan stops and the indicator stays orange.

2 Turn the MAIN POWER switch of the projector off.
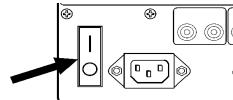
⚠ *Caution:* ***Do not turn off the MAIN POWER switch before pressing the STANDBY/ON button. After the STANDBY/ON button is pressed, the fan rotates for about 1 minute to cool the projector.***

3 Close the lens shutter.

- Push up on the lens cover switch to close.

4 Disconnect cables.

4.1 Menu

1, 2

2

1

1
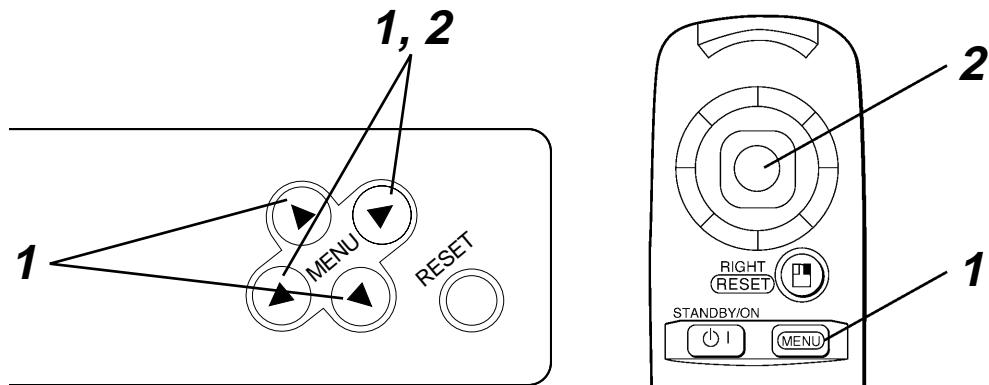
1 **Press the MENU (▲ ▼ ◄ ►) buttons on projector or remote control MENU button.**

• On-screen menus are displayed on the screen.

2 **Select the menu to be adjusted using the MENU (◄ ►) buttons or STICK SWITCH.**

• Selected Menu is highlighted.

3 **Select the item to be adjusted using the MENU (▲ ▼ ◄ ►) buttons or STICK SWITCH.**

• Highlighted items may be adjusted.
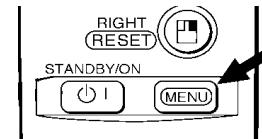
Memory function

Individual memory functions are provided for the VIDEO1, VIDEO2, RGB1 and RGB2 input terminals. Adjustments are saved after power off.

To return to the factory default setting:

√ **Highlight SETUP option.**

√ **To reset the entire SETUP menu**
 • Press the RESET button.
  • Select DEFAULT or CANCEL.

√ **To reset a single item from SETUP menu**
  • Select the adjustment item (brightness, contrast...)
  • Press the RESET button. **Only the selected item resets.**

```
SETUP   INPUT   IMAGE   OPT.

VOL
B R I      RESET    'SETUP'
CON
SHA          ■ DEFAULT
COL          □ CANCEL
T I N
```
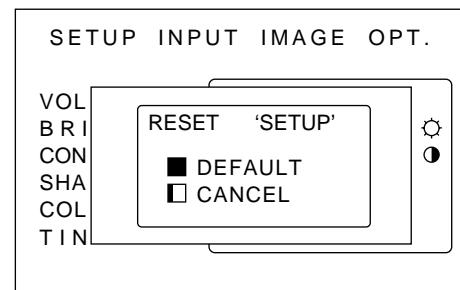
4.2 How To Use Foot Adjusters

Adjust the projection position using the foot adjusters at the bottom of the projector.

Front view

unlock ← → lock
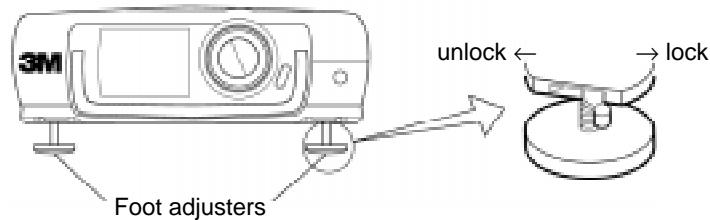
Foot adjusters

Side view
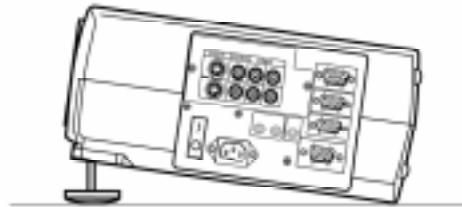
4.2.1   Lift up the projector, unlock the foot adjusters.
4.2.2   Adjust a viewing angle, and then lock the foot adjusters.
4.2.3   For fine adjustments, rotate the foot adjusters.

⚠ *Caution:*   ***Do not unlock the foot adjusters if you do not support the projector.***
                  If the foot adjusters do not lock completely, turn the foot adjusters slightly before locking.

4.3 SETUP

The menu SETUP is used to adjust the image and to move the image position.

RGB signal input

```
SETUP  INPUT  IMAGE  OPT.

VOLUME         ▮▮▮▮▮▯▯▯▯▯
BRIGHT         ▮▮▮▮▮▮▯▯▯▯      ☼
CONTRAST       ▮▮▮▮▮▮▮▯▯▯      ◑
V.POSIT            121         ⊟
H.POSIT             57         ⊡
H.PHASE              7
H.SIZE             800         ⊟
```

Video signal input

```
SETUP  INPUT  IMAGE  OPT.

VOLUME         ▮▮▮▮▯▯▯▯▯▯
BRIGHT         ▮▮▮▮▮▮▯▯▯▯      ☼
CONTRAST       ▮▮▮▮▮▮▮▯▯▯      ◑
SHARPNESS      ▮▮▮▮▮▯▯▯▯▯
COLOR          ▮▮▮▮▯▯▯▯▯▯
TINT           ▮▮▮▮▮▯▯▯▯▯
```
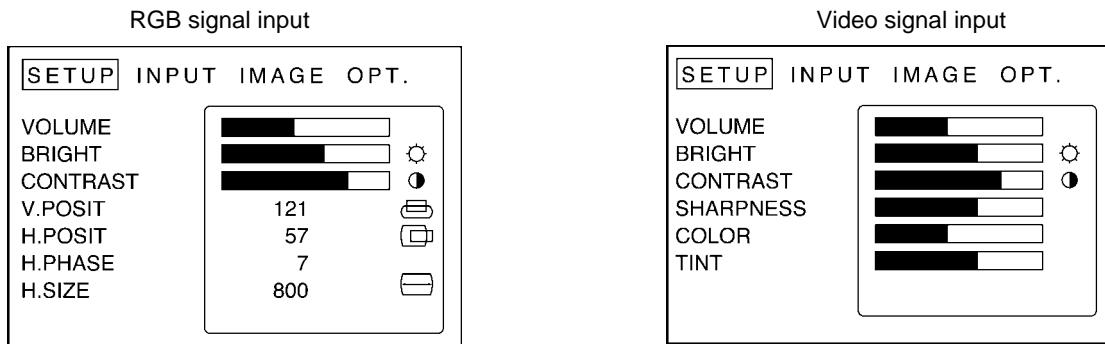
Adjustment Item	Details of adjustment
VOLUME	Decrease ←——→ Increase
BRIGHT (BRIGHTNESS)	Dark ←——→ Bright
CONTRAST	Lower ←——→ Higher
SHARPNESS	Soft ←——→ Sharp
COLOR	Less ←——→ More
TINT	Red ←——→ Green
V.POSIT (V.POSITION)	Moves the picture up or down.
H.POSIT (H.POSITION)	Moves the picture left or right.
H.PHASE	Decreases the picture flicker.
H.SIZE	Widens or Narrows the horizontal size of picture.

Note:
    • *TINT cannot be adjusted with a PAL video signal input.*
    • *TINT, COLOR and SHARPNESS cannot be adjusted with an RGB signal input.*
    • *V. POSIT, H. POSIT, H. PHASE and H. SIZE cannot be adjusted with a VIDEO signal input.*

4.4 INPUT

The menu INPUT is used to select the input source.

```
SETUP  INPUT  IMAGE  OPT.

    ☐ RGB1
    ■ RGB2
    ☐ VIDEO1▸
    ☐ VIDEO2▸
    ☐ TEST
      PATTERN
```

```
SETUP  INPUT  IMAGE  OPT.

    ☐ RGB1
    ☐ RGB2              ┌ S Y S T E M ┐
    ■ VIDEO1▸           │ ■ AUTO      │
    ☐ VIDEO2▸           ├─☐ NTSC      │
    ☐ TEST              ├─☐ PAL       │
      PATTERN           └─☐ SECAM     │
```
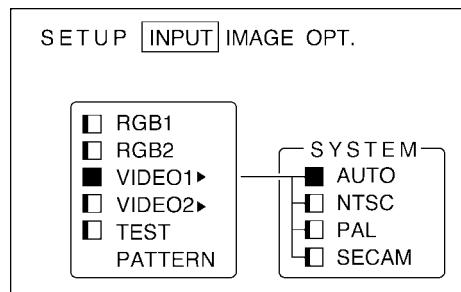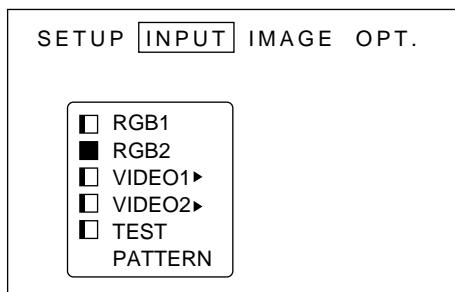
Selection	Description
RGB1	Selects the RGB 1 terminal.
RGB2	Selects the RGB 2 terminal.
VIDEO1	Selects the VIDEO 1 terminal.
VIDEO2	Selects the VIDEO 2 terminal.
TEST PATTERN	Selects the TEST PATTERN. (Start up screen.)

☐ **SYSTEM** Selects the video signal systems.

4.5 IMAGE

The IMAGE menu is used to alter the image.

```
SETUP  INPUT  IMAGE  OPT.

        MIRROR      ▸
        BLANK       ▸
        REVEAL      ▸
        DISP. SIZE  ▸
        MESSAGE     ▸
```

```
SETUP  INPUT  IMAGE  OPT.

    MIRROR  ■ NORMAL
            ☐ H:INVERT
            ☐ V:INVERT
            ☐ H&V:
                INVERT
```

```
SETUP  INPUT  IMAGE  OPT.

    BLANK  ☐ WHITE
           ■ BLUE
           ☐ BLACK
```

```
SETUP  INPUT  IMAGE  OPT.

    REVEAL  ■ FAST
            ☐  ↑
            ☐ MEDIUM
            ☐  ↓
            ☐ SLOW
```

4.5 IMAGE (continued)

```
 SETUP  INPUT  IMAGE  OPT.


   DISP. SIZE  ☐ LARGE
               ■ NORMAL
```

```
 SETUP  INPUT  IMAGE  OPT.


   MESSAGE  ☐ TURN ON
            ■ TURN OFF
```
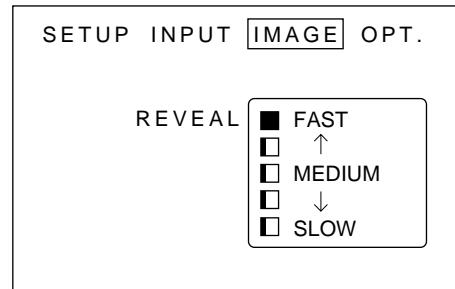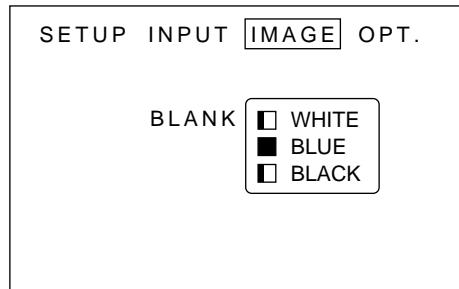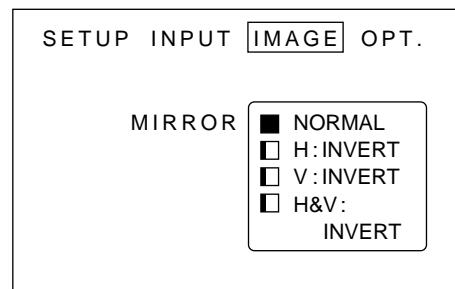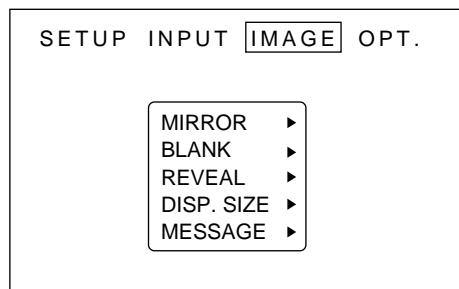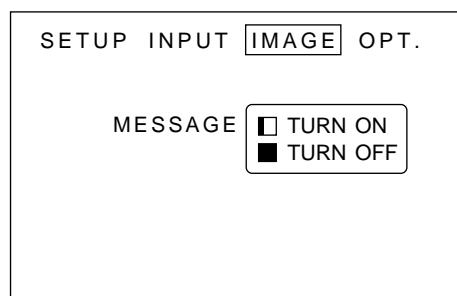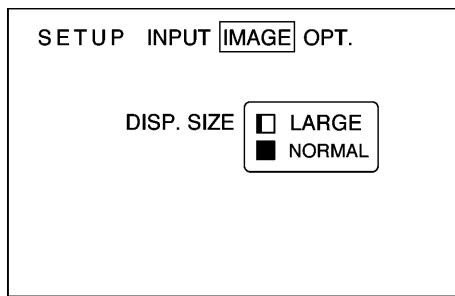
Selection	Description
MIRROR	Inverts the picture horizontally or vertically. H : INVERT Inverts the picture horizontally. V : INVERT Inverts the picture vertically. H&V : INVERT Inverts the picture horizontally and vertically.
BLANK	Selects the blank color.
REVEAL	Selects the speed of revelation.
MESSAGE	Turn off the on-screen message.

Display Size	Source	Option	Description
	640 X 480	Normal Large	Displays in 640x480 window centered on screen. Expands 640x480 to full 800x600 screen.
	800 X 600	Normal Large	Displays full 800x600. Not available.
	1024 X 768	Normal Large	Compresses 1024x786 to 800x600 screen. Displays 800x600 "window" into 1024x768. This window can be moved with H and V Position or by holding position button and moving the stick switch.
	Video	Normal Large	Displays video in a 640x480 window centered on screen. Expands video to fill 800x600 screen.

4.6 OPT

The meno OPT. allows you to control communication function.

```
┌─────────────────────────────────────┐
│  SETUP  INPUT  IMAGE  │OPT.│         │
│                       └────┘         │
│            ┌──────────────────┐      │
│            │ COM. SPEED  ▶     │      │
│            │ COM. BITS    ▶    │      │
│            │ TIMER        ▶    │      │
│            │ LANGUAGE     ▶    │      │
│            │ AUTO OFF     ▶    │      │
│            │ STARTUP      ▶    │      │
│            └──────────────────┘      │
└─────────────────────────────────────┘
```

```
┌─────────────────────────────────────┐    ┌─────────────────────────────────────┐
│  SETUP  INPUT  IMAGE  │OPT.│         │    │  SETUP  INPUT  IMAGE  │OPT.│         │
│                       └────┘         │    │                       └────┘         │
│                 ┌──────────────┐     │    │                  ┌──────────────┐    │
│  COM. SPEED     │ ■    1200    │     │    │  COM. BITS       │ ■    7N1     │    │
│       (bps)     │ □    2400    │     │    │                  │ □    8N1     │    │
│                 │ □    4800    │     │    │                  └──────────────┘    │
│                 │ □    9600    │     │    │                                      │
│                 │ □   19200    │     │    │                                      │
│                 └──────────────┘     │    │                                      │
└─────────────────────────────────────┘    └─────────────────────────────────────┘
```

```
┌─────────────────────────────────────┐    ┌─────────────────────────────────────┐
│  SETUP  INPUT  IMAGE  │OPT.│         │    │  SETUP  INPUT  IMAGE  │OPT.│         │
│                       └────┘         │    │                       └────┘         │
│              ┌──────────┐            │    │  LANGUAGE──■ ENGLISH                 │
│              │    ↑     │            │    │           ├─□ FRANCAIS                │
│   TIMER      │  10 min. │            │    │           ├─□ DEUTSCH                 │
│              │    ↓     │            │    │           ├─□ ESPANOL                 │
│              └──────────┘            │    │           ├─□ ITALIANO                │
│                                      │    │           ├─□ NORSK                   │
│                                      │    │           └─□ NEDERLANDS              │
└─────────────────────────────────────┘    └─────────────────────────────────────┘
```

```
┌─────────────────────────────────────┐
│  SETUP  INPUT  IMAGE  │OPT.│         │
│                       └────┘         │
│               ┌──────────┐           │
│               │    ↑     │           │
│  AUTO OFF     │  0  min. │           │
│               │ STOP     │           │
│               └──────────┘           │
└─────────────────────────────────────┘
```
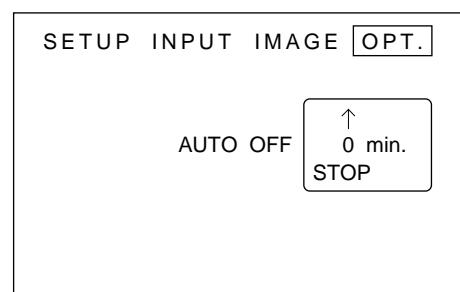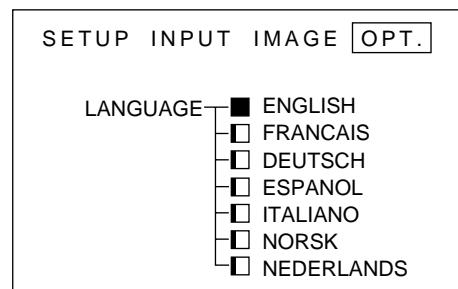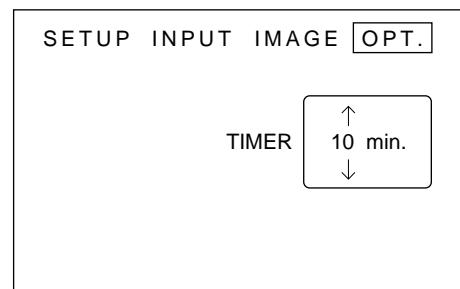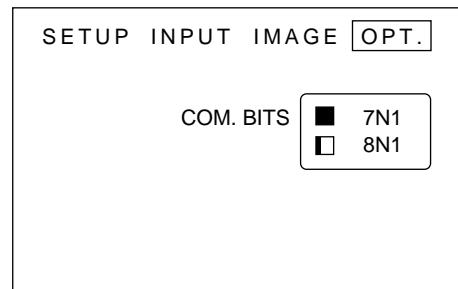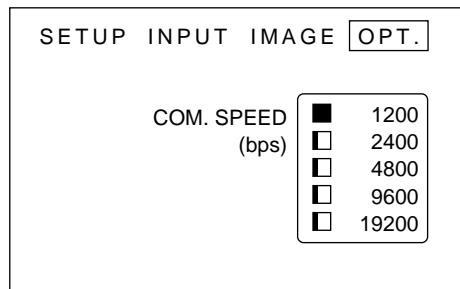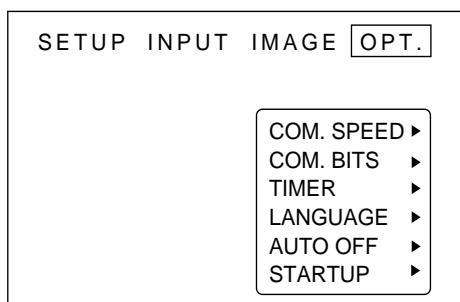
| Selection	Description
COM. SPEED	Selects the data speed of transmission. (For mouse emulation-1200)
COM. BITS	Selects the data format of transmission. 7N1... 7 data-bits, No parity, 1 stop bit. (For mouse emulation-7NI) 8N1... 8 data-bits, No parity, 1 stop bit.
TIMER	Sets minutes of timer.
LANGUAGE	Selects the language on-screen menu. (English, French, German, Spanish, Italian, Swedish, Dutch)
AUTO OFF	Selects how long projector will stay on, if no input is detected. Select Ø to disable this function.

5.1 Connection to the Video Signal Terminal

a.   Input signal

S-VIDEO signal	Luminance signal Chrominance signal	1.0Vp-p, 75 Ω termination 0.286Vp-p (burst signal), 75 Ω termination
VIDEO signal		1.0Vp-p, 75 Ω termination
AUDIO signal	Input	200mVrms, 20 k Ω below (MAX 3.0Vp-p)
	Output	0~200mVrms, 1k Ω

b.   Signal input terminal

S VIDEO input (Mini DIN4 pin)
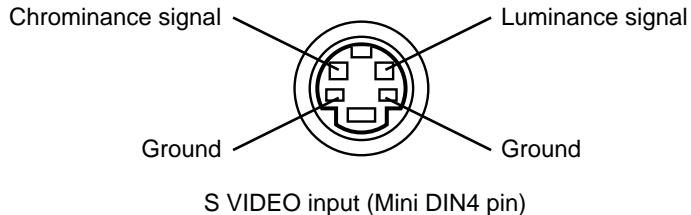
Note: Video input signal terminals have priority in the following order:
1. S-VIDEO input terminal
2. RCA jack (composite) input terminal

5.2 Connection to the RGB Signal Terminal

a.   Input signal / Output signal

Video signal	Analog 0.7Vp-p 75 Ω termination (Positive polarity)
Horizontal sync signal	TTL level (Positive/negative polarity)
Vertical sync signal	TTL level (Positive/negative polarity)
Composite sync signal	TTL level
Audio signal	Input	200mVrms, 20k Ω below (MAX 3.0Vp-p)
	Output	0 ~ 200mVrms, 1k Ω

b.   Signal input terminal / output terminal

1	Video signal (Red)	9	N.C
2	Video signal (Green)	10	Ground
3	Video signal (Blue)	11	Ground
4	N.C	12	N.C
5	N.C	13	Horizontal/Composite sync signal
6	Ground (for R)	14	Vertical sync signal
7	Ground (for G)	15	N.C
8	Ground (for B)		

D-sub 15pin (Male)
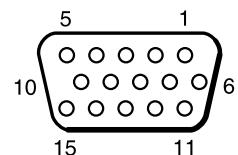
c.   Example of computer signal

Computer/Signal source	Resolution H × V	fH (kHz)	fV (Hz)	Sync Signal	Interlaced / Non-interlaced	Note
VGA-1 (IBM™ compatible)	640 × 350	31.5	70.1	H, V separate H: Positive V: Negative	Non-interlaced	Note: 3
VGA-2 (IBM™ compatible)	640 × 400	31.5	70.1	H, V separate H: Negative V: Positive	Non-interlaced	Note: 3
VGA-3 (IBM™ compatible)	640 × 480	31.5	59.9	H, V separate H: Negative V: Negative	Non-interlaced	Note: 3
Macintosh™ 13 inch mode (Apple™)	640 × 480	35.0	66.7	H, V separate H: Negative V: Negative	Non-interlaced	Note: 1
VESA 72 Hz standards	640 × 480	37.9	72.8	H, V separate H: Negative V: Negative	Non-interlaced	Note: 3
SVGA (VESA 60Hz)	800 × 600	37.9	60.3	H, V separate H: Positive V: Positive	Non-interlaced	
SVGA (VESA 72Hz)	800 × 600	48.1	72.2	H, V separate H: Negative V: Negative	Non-interlaced	
Macintosh™ 16 inch mode (Apple™)	832 × 624	49.7	74.5	H, V separate H: Negative V: Negative	Non-interlaced	Note: 1
XGA (VESA 60Hz)	1024 × 768	49.1	60.1	H, V separate H: Positive V: Positive	Non-interlaced	Note: 2
XGA (VESA 75Hz)	1024 × 768	60.2	75.0	H, V separate H: Positive V: Positive	Non-interlaced	Note: 2

Note 1: *MAC adapter is necessary to set the resolution mode.*
Projector is compatible with 13 inch mode and 16 inch mode.

Set all dip switches OFF except those indicated in the chart.
For example:

MAC 13" mode = switch 1, 5 and 6 are ON
MAC 16" mode = switch 2, 5 and 6 are ON
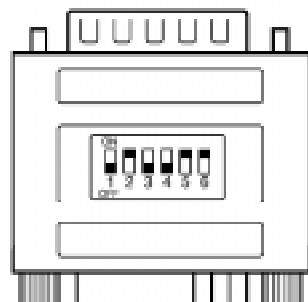
(Example of 16 inch mode)

Note 2: *XGA (1024 x 768) will have less resolution, due to compression techniques used to display the image*

Note 3: *Some input sources may not be displayed properly because they are not compatible with the projector.*

5.3 Connection to the Control Signal Terminal

a. Mouse emulation

(1) While the projector and computer are turned OFF, connect the projector and the mouse terminal of computer using an appropriate cable. (PS/2, Serial or ADB)

(2) Turn ON the projector.

(3) Turn ON the computer.

(4) Select the correct mouse driver for the application. See computer's User Manual for this procedure.

Note: *In some Notebook computers which have internal pointing device, mouse emulation will not work unless the internal pointing device is disabled. In this case, disable the internal pointing device in BIOS setting. Check the computer's manual for procedure to follow to disable internal pointing device in BIOS setting.*

⚠ *Caution:* *Turn off the power to both the projector and computer before connecting.*
Connect the computer to the control terminal of the projector using the appropriate cable.

PS/2 mouse
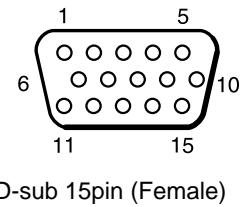
D-sub 15pin (Female)
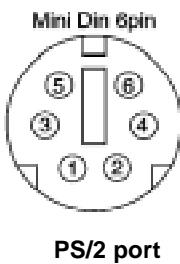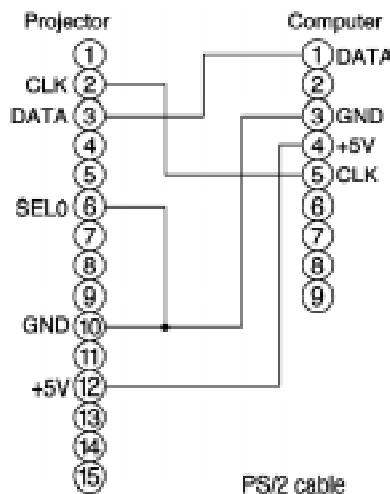
ADB mouse

D-sub 15pin (Female)
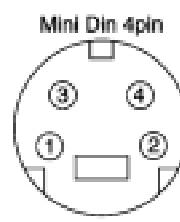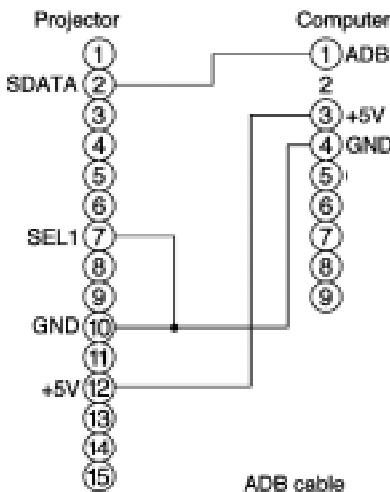
5.3 Connection to the Control Signal Terminal (continued)

Serial mouse

D-sub 15pin (Female)

Serial Mouse cable

D-sub 9pin (male)
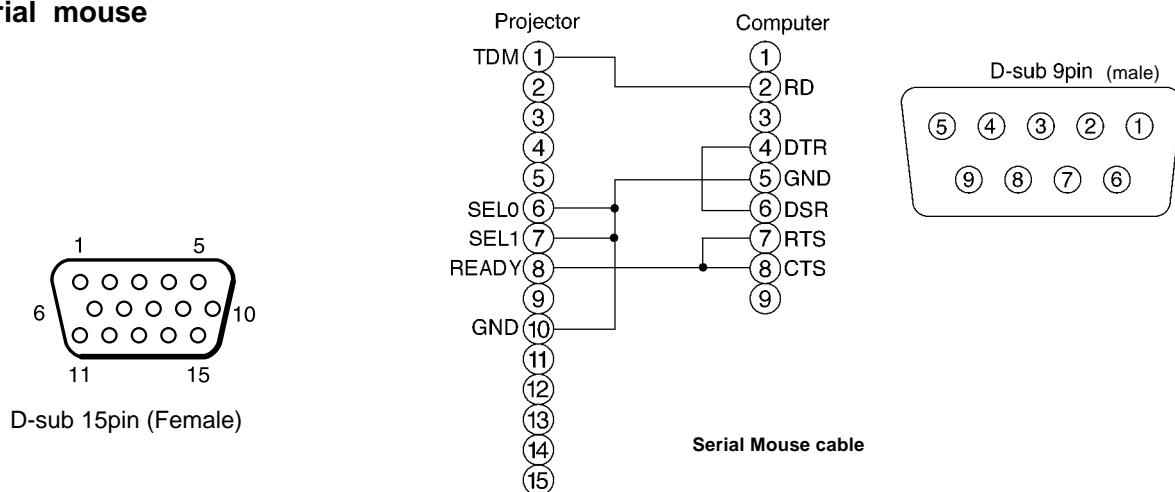
b.   RS 232 Control Cable (not included with basic packout)

This cable is used to directly control the projector without using the Remote Control or Operator's Panel.

D-sub 15pin (Female)

RS-232 cable
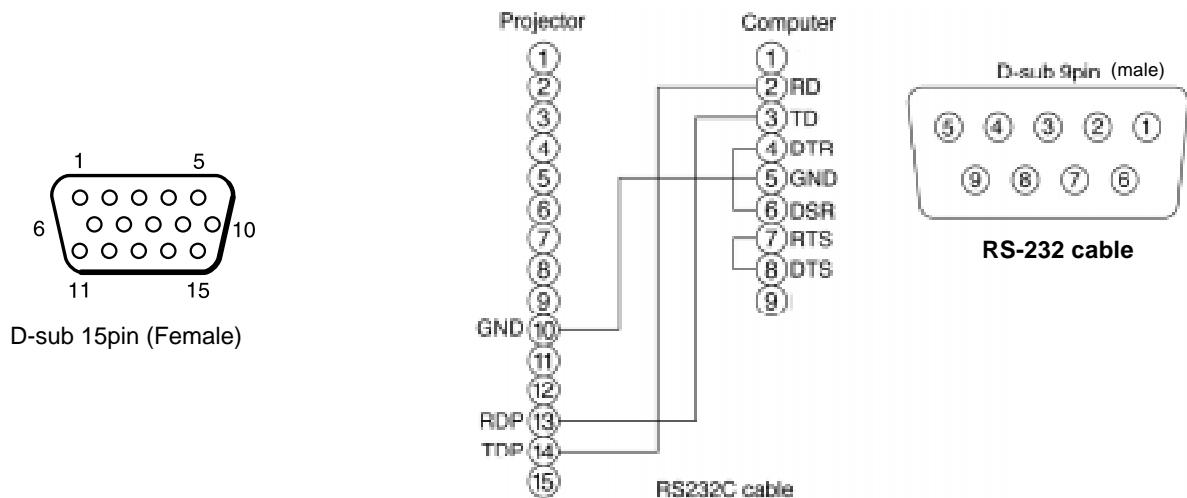
RS232C cable

6.1 Cleaning the Air Filter

Note: Clean the air filter about every 50 hours.

    a) Turn off the **MAIN POWER** switch of the projector and pull out power cord. Let cool for 20 minutes.

    b) Remove the air filter from the bottom of projector. Unscrew two retaining screws and pull down and out on the handle to free air cleaner door. Carefully lift up and out on filter door.
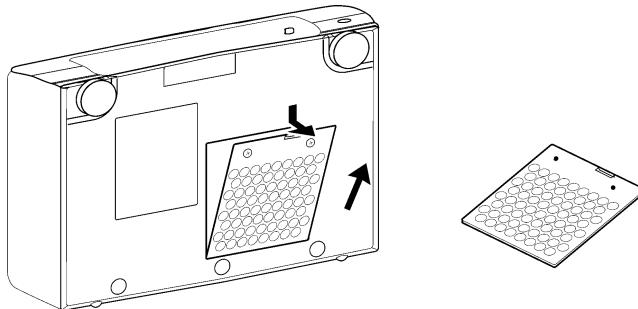
Remove the air filter

    c) Clean the air filter using a vacuum cleaner.   If dirt is still present, wipe the air filter with a cloth moistened with water and wipe with a dry lint-free cloth.

    d) After filter dries completely, re-install the air filter.

Note: If air flow is restricted due to dust accumulation on filter, the projector may shut down due to over heating.

6.2 Message Table

    a) On Screen Display. The following messages are displayed on the screen:

NO SIGNAL IS DETECTED:	The projector is not detecting a signal.
SYNC IS OUT OF RANGE:	The horizontal frequency of the input signal exceeds the range of the projector, or it cannot be displayed.
CHANGE THE LAMP:	Change when the lamp message appears on the screen.

    b) Indicator Display. The **ON** indicator, **LAMP** indicator and **TEMP** indicator will light or blink in the following cases:

	Indicator status	Meaning	Remedy
ON indicator	Lights orange	Standby mode	normal
	Blinks green	During warming up	normal
	Lights green	During operation	normal
	Blinks orange	During cooling down	normal
LAMP indicator	Lights red	Lamp cannot light	Cool projector by power off for 20 minutes.
	Blinks red	Air filter open	Ensure filter is closed.
TEMP indicator	Lights red	Temperature inside too high	Let projector cool 20 minutes. Check air flow and filter.
	Blinks red	Cooling fan not operating	call your dealer

*When the LAMP indicator lights or blinks, turn the power off. If the problem persists, contact your dealer.

6.3 Lamp

The following symptoms may indicate a lamp in need of replacement:

• A dark picture.
• LAMP indicator lights up red.
• "CHANGE THE LAMP" message appears on the screen.

Display Lamp Operation Hours

If the "CHANGE THE LAMP" message appears on the screen or if there is need to determine the lamp operation hours, follow these steps:

a) While the projector is running, press and hold the timer button on the remote control for 3 seconds.

b) The operating time of the lamp will be displayed.

c) To reset the timer, press the reset button and select **0** (or CANCEL). The "CHANGE THE LAMP" message will not come up if the timer is reset.

Replacing the Lamp

6.3.1 **Remove lamp access door:** The lamp access door is located on the back of the machine on the right side. Use a phillips screwdriver to unscrew the cover retaining screws and gently open the cover and set it aside.

⚠ *Warning:* *There are high voltage parts inside the cabinet that may cause an electric shock. Always unplug projector when changing lamp.*

⚠ *Warning:* *Lamp and adjacent metal parts become extremely hot and can cause severe burns to your fingers. Allow the projector to cool for at least 1 hour before replacing the lamp.*
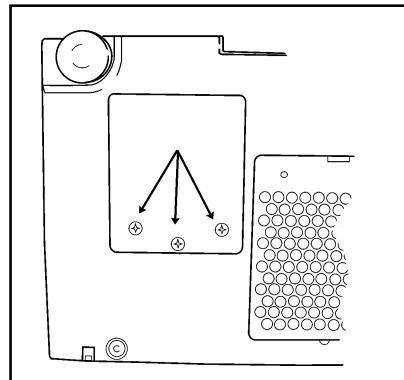
6.3.2 **Retaining screws:** Use a standard screwdriver to unscrew the lamp module retaining screws.

Note: *There are three lamp module screws that must be loosened. These screws are self-containing screws that cannot be removed from the lamp module.*
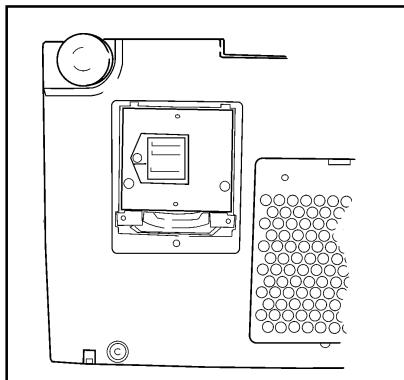
6.3.3 **Remove lamp module:** Grasp the lamp module with the one hand and the projector body opening with the other hand. Apply upward pressure to the projector body as you slide the lamp out.

3M™ Multimedia Projector MP8630
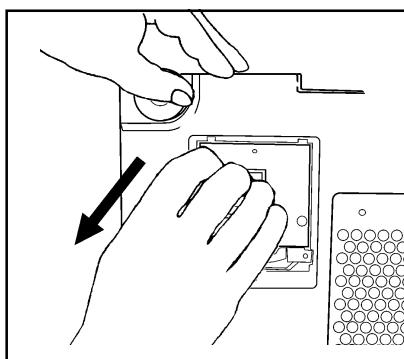
6.3.4. **Insert lamp module:** Carefully insert the new lamp module. Ensure that it is fully seated.

Tighten the lamp module retaining screws to secure the lamp module in place.

Insert the hinge tabs on the left side of the lamp access door, then close and tighten the retaining screws to secure the door
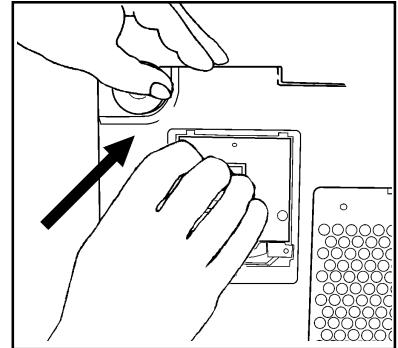
6.4 When You Think Something Is Wrong

Check the following again before asking for service. If a solution cannot be found, consult dealer.

Symptom	Cause	Solution
Power cannot be turned on	• The Main power is not turned on. • The power cord is disconnected.	• Turn the MAIN POWER switch on. • Insert the power cord into an AC socket.
No picture and sound	• The setting of the input source is not correct. • RGB/Video/Audio wiring to projector is not correct.	• Set the correct input using the input select button of the projector or the remote control. • Connect the cable correctly.
Sound is heard with no picture	• RGB/Video wiring to projector is not correct. • The brightness is set fully to dark side.	• Connect the cable correctly. • Press the MENU button and increase BRIGHTNESS.
Picture is displayed with no sound	• Audio wiring to projector is not correct. • The volume is set to minimum. • The unit is muted.	• Connect the cable correctly. • Press the VOL button and increase VOLUME. • Press the MUTE button.
Color is weak and tint is incorrect	• The color and tint have been adjusted incorrectly.	• Adjust the color and tint correctly.
Picture is dark	• The brightness and contrast has been adjusted incorrectly. • The lamp needs to be replaced.	• Adjust the brightness and contrast correctly. • Replace the lamp with a new one.
Picture is not clear	• Projector is out of focus.	• Adjust the focus.
LAMP indicator lights red	• Lamp is too hot.	• Turn off power and let cool for 20 minutes, then restart. • If problem persists call your dealer.
TEMP indicator lights red	• Inside the projector too hot.	• Do not block the ventilation holes. • Clean air filter
LAMP indicator blinks red	• Air filter door on bottom of case is open.	• Ensure air filter door is closed.

7.1   Specifications

Note: All specifications are subject to change without notice.

Product name		Multimedia projector
Model Name		MP8630
Display system		3 beam poly-silicon LCD
Liquid crystal panel	Panel size	1.3 inches (33 mm)
	Drive system	TFT active matrix
	Number of pixels	519,168 pixels (V624 × H832) per panel. 1.56 million pixels total with 3 panels.
Lens		F/Number: F/2.3 – F/3.0 Focal Length: F = 48.1 – 72.1 mm (1.9" – 2.8")
Lamp		Metal halide lamp 250W
Speaker		2W and 2W (stereo)
Power supply		AC100 ~ 120V, 5A / AC220 ~ 240V, 2A (Universal)
Power consumption		350W
Usable temperature range		32° ~ 95°F (0° ~ 95°C)
Dimensions		16.3" (W) × 5.9" (H) × 12.0" (D) 414 mm (W) x 150 mm (H) x 305 mm (D)
Weight		18 lbs. (8.1 kg)
Input/Output terminal	video signal input terminal	S VIDEO : Mini DIN4-pin terminal VIDEO : RCA Jack terminal AUDIO : RCA Jack terminal
	RGB input/output signal terminal	RGB signal : D-sub 15pin (Female) AUDIO : Stereo mini jack
	Control terminal	D-sub 15pin (Male)

7.2   Accessories

Part Number

- Metal halide lamp module, 250 W   78-8118-3294-4
- Power cord (US)   26-1011-8852-7
- Power cord (UK)   78-8118-3304-1
- Power cord (Germany)   78-8118-3303-3
- VGA cable   26-1011-3421-6
- MAC adapter   78-1011-3308-2
- S-video cable   26-1011-3419-0
- 3-conductor video/audio cable   78-8118-3306-6
- Serial mouse cable   78-8118-3315-7
- PS/2 mouse cable   78-8118-3313-2
- ADB mouse cable   78-8118-3314-0
- RS 232 control cable   78-8118-3312-4 (not included with basic packout)

7.3 Dimension Diagram
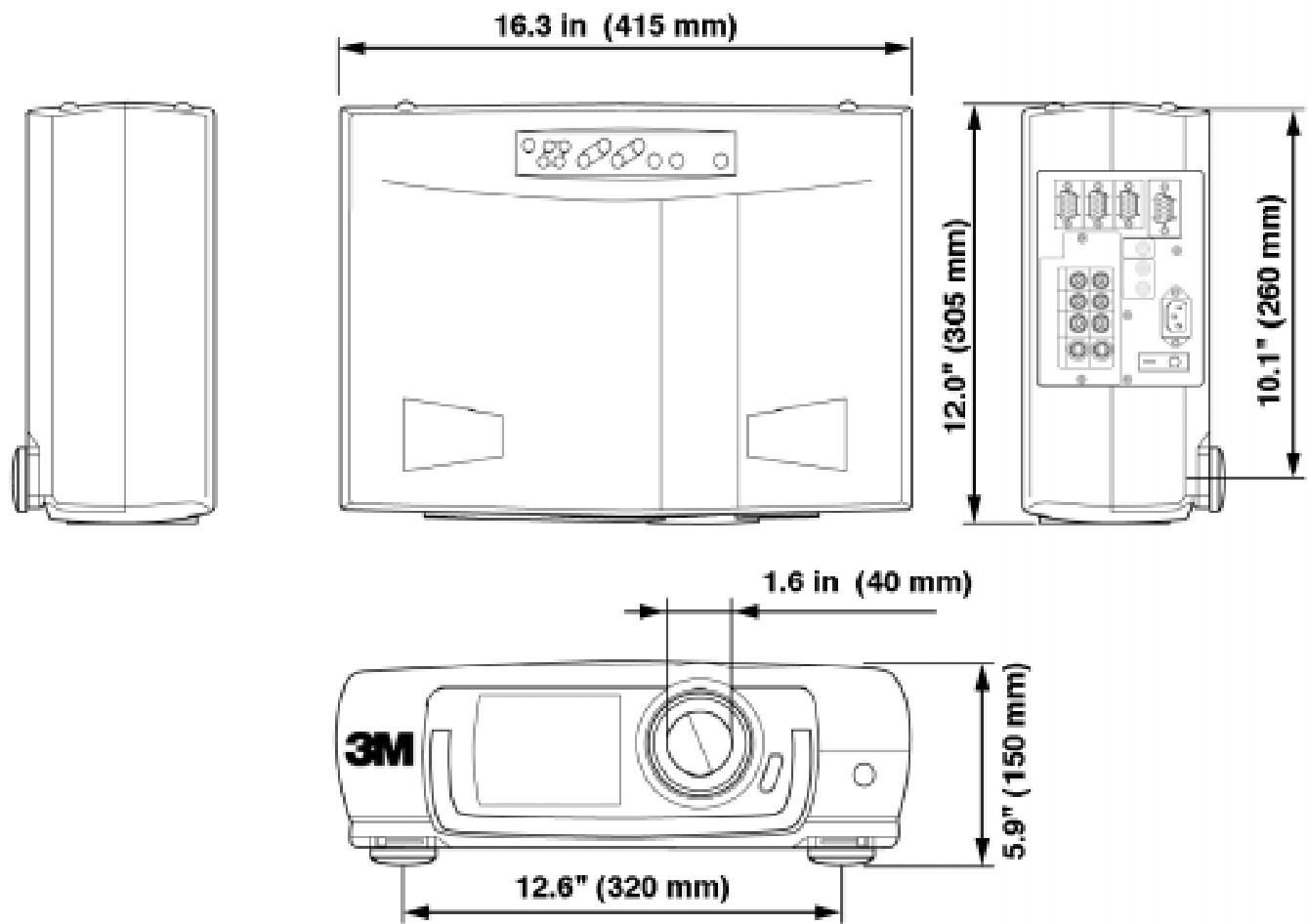
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800-328-1371
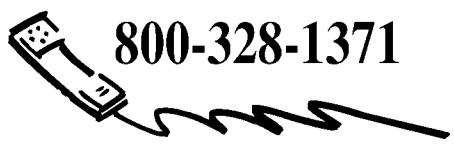
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